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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,891	08/01/2003	Toru Harada	012777-054	9816

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BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER
KLEMANSKI, HELENE G

ART UNIT	PAPER NUMBER
1755	

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/631,891	HARADA ET AL.
	Examiner	**Art Unit**	
	Helene Klemanski	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-11* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *6-8* is/are allowed.

6) ☐ Claim(s) _____ is/are rejected.

7) ☒ Claim(s) *4 and 11* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☒ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/30/03 & 1/14/04*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

## DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by

Colberg et al.

Colberg et al. teach a disazo compound of the formula

$$K^1{-}N{\equiv}N \cdots A \cdots CO{-}N \diamond N{-}CO \cdots B \cdots N{\equiv}N{-}K^2$$
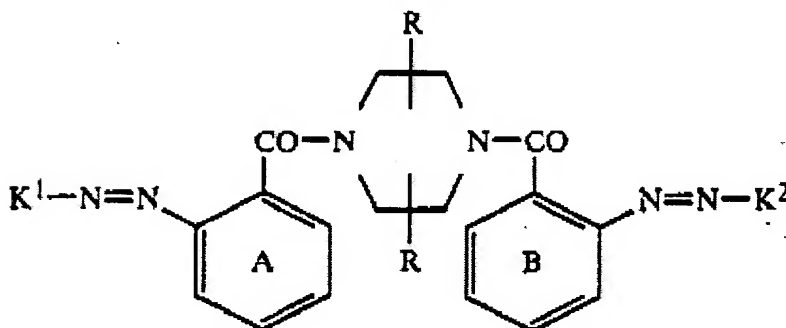
wherein R is H or C_1-C_4 alkyl, K^1 and K^2 are independently of one another are the

radical of the formula

$$HO{-}\underset{R^3}{\diamond}{-}N{-}R^4$$
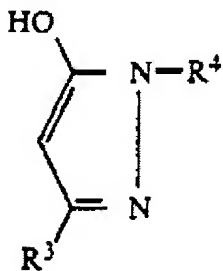
wherein R^3 is H, methyl, carboxyl, C_1-C_8 alkoxycarbonyl, unsubstituted or substituted

carbamoyl or unsubstituted or substituted aryl and R^4 is H or unsubstituted or

substituted aryl. Colberg et al. further teach a printing ink composition such as a

gravure ink comprising the disazo compound. See col. 1, line 5 – col. 2, line 40, col. 6,

lines 63-65, examples 3-7, 66-216, 218-222, 224-249, 256-328, col. 31, lines 20-30 and

claims 1 and 2. The disazo compound and gravure ink as taught by Colberg et al.

appears to anticipate the present claims.

3.   Claims 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by

Kramb.

Kramb teaches a disazo compound of the formula
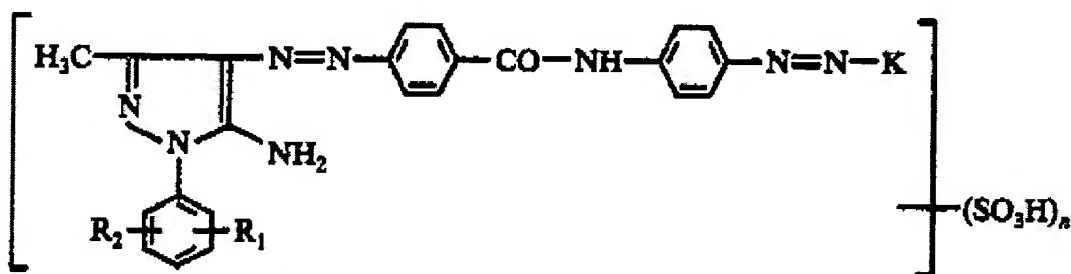
wherein R_1 and R_2 are H, C_1-C_4 alkyl, C1-C4 alkoxy or halogen, n is 0 or 1 and K is the
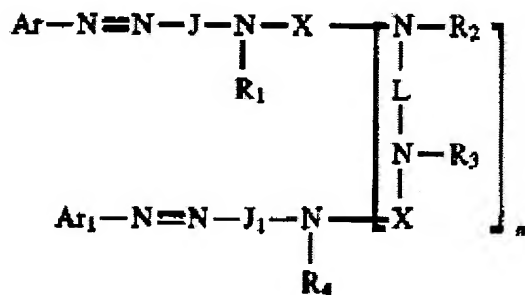
formula
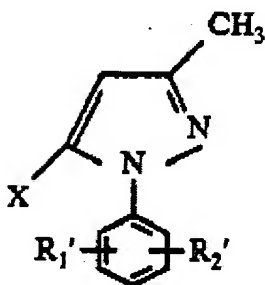
wherein X is NH_2 or OH and R_1' and R_2' are H, C_1-C_4 alkyl, C_1-C_4 alkoxy, halogen or sulfo. See col. 1, line 7 – col. 2, line 22, examples 8-13 and 18 and claim 1. The disazo compound as taught by Kramb appears to anticipate the present claims.

4.   Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al.

Saito et al. teach an ink jet ink composition comprising a disazo dye of the formula
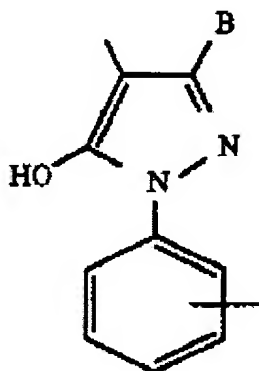
$$Ar-N=N-J-N-X \longrightarrow \left[\begin{array}{c} N-R_2 \\ | \\ L \\ | \\ N-R_3 \end{array}\right]_n$$

$$\begin{array}{c} | \\ R_1 \end{array}$$

$$Ar_1-N=N-J_1-N-X$$
$$\begin{array}{c} | \\ R_4 \end{array}$$

wherein Ar and Ar_1 are an aryl or substituted aryl group, J and J_1 are of the formula
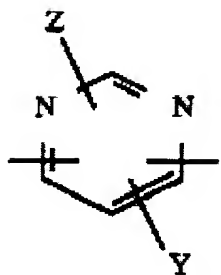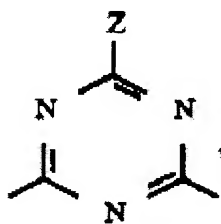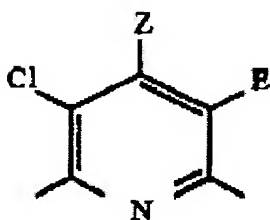

or
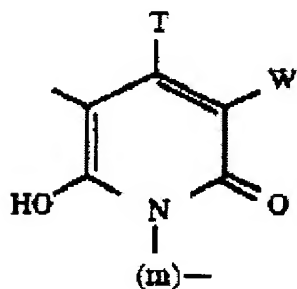
wherein T is an alkyl group, W is H, CN, $CONR_{10}R_{11}$, pyridinium and COOH, (m) is an alkylene chain having 2-8 carbon atoms, B is H, alkyl or COOH and R_1, R_2, R_3, R_4, R_{10} and R_{11} are H, alkyl or substituted alkyl, L is a divalent organic bonding group, n is 0 or 1 and X is a carbonyl group or a group of the formula

and

wherein the definitions of Z, Y and E are disclosed in col. 3, lines 48-62 and a yellow

dye having a SO$_3$H group. Saito et al. further teach an ink jet recording method

comprising ejecting droplets of the above ink jet ink onto a substrate. See col. 2, lines

15 – col. 3, lines 67, col. 5, line 45 – col. 7, line 10, Dye (2), Dye (4), Dye (7), col. 16,

lines 46-55, example 2 and claims 1, 9, 15 and 23. The ink jet ink composition as

taught by Saito et al. appears to anticipate the present claims.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kuhne et al.

Kuhne et al. teach a disazo compound of the formula
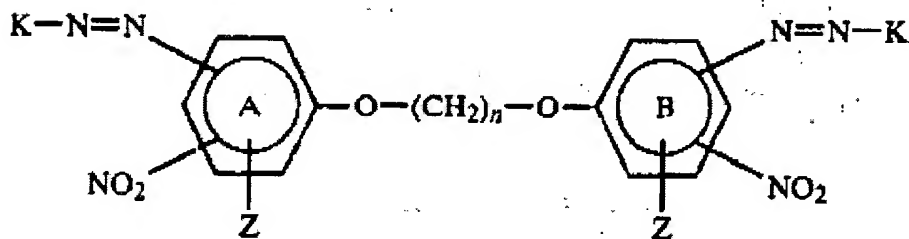
wherein Z is H, halogen, lower alkyl or lower alkoxy, n is from 1-10 and K is the formula

$$-CH-C-R_1$$
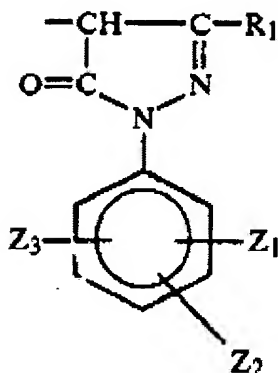
wherein R_1 is C_1-C_6 alkyl, carboxy, C_1-C_6 carboxyalkl, Z_1 and Z_2 are H, halogen, C_1-C_6 alkyl or C_1-C_6 alkoxy and Z_3 is H, halogen, C_1-C_6 alkyl or C_1-C_6 alkoxy. Kuhne et al. further teach that the above disazo compounds may be used as colorants in printing inks. See col. 1, line 11 – col. 2, line 38, col. 7, lines 25-45, example 6 and claims 1 and 7. Kuhne et al. fails to specifically exemplify the use of the disazo compounds as claimed by applicants in an ink composition.

Therefore, it would have been obvious to one having ordinary skill in the art to use the specific disazo compounds as claimed by applicants as Kuhne et al. also discloses the use of these disazo compounds in printing ink compositions but fails to show an example incorporating them.

7. Claims 1-3, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramanathan.

Ramanathan teach a disazo compound of the formula

$$D_1-N=N-C \underline{\quad\quad} C-R_1 \quad R_2-C \underline{\quad\quad} C-N=N-D_2$$
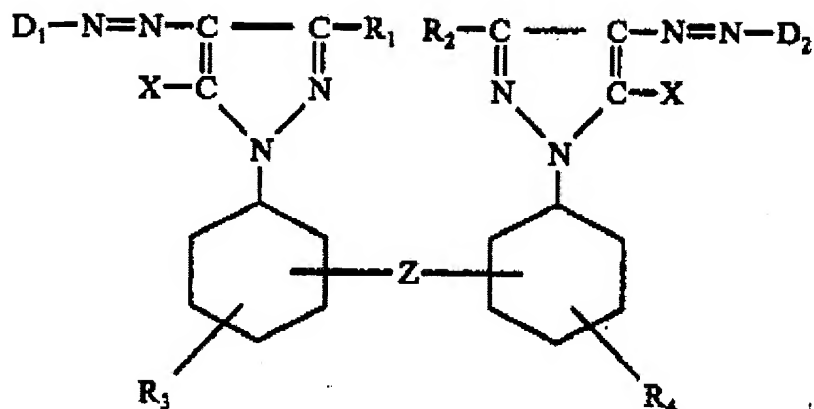
wherein X is OH or an amino group, R_1 and R_2 are H, alkyl, aryl or alkoxy, D_1 and D_2 are

a residue of a disazo component such as a 5 membered heterocyclic ring having 2 or 3

hetero atoms, Z is O or S and R_3 and R_4 are H, alkyl, alkoxy or halogen. See col. 1, line

12 – col. 2, line 25, col. 3, lines 45-65, col. 8, lines 20-30, col. 8, lines 5-9, examples 1-

3, the Table beginning at the bottom of col. 10 and continuing thru col. 18, example 5

and the Table following it, example 6 and the Table following it and claims 1 and 5.

Ramanathan further teaches that the above disazo compounds may be used as

colorants in printing inks. Ramanathan fail to specifically exemplify the use of the disazo

compounds as claimed by applicants in an ink composition.

Therefore, it would have been obvious to one having ordinary skill in the art to

use the specific disazo compounds as claimed by applicants as Ramanathan also

discloses the use of these disazo compounds in printing ink compositions but fails to

show an example incorporating them.

Allowable Subject Matter

8.   Claims 6-8 are allowed.

9.   The following is an examiner's statement of reasons for allowance: None of the cited references teach or fairly suggest an ink sheet, a color toner or a color filter comprising the disazo dye of the formulas as claimed by applicants.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

10.   Claims 4 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11.   The following is a statement of reasons for the indication of allowable subject matter: None of the prior art cited teaches or fairly suggests a disazo dye of the formula as claimed by applicants wherein A and A' are each a 5-aminopyrazole ring, and B and B' each are a thiadiazole ring as claimed by applicants.

Conclusion

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mark Bell can be reached on (571) 272-1362. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/Helene Klemanski

Primary Examiner

Art Unit 1755

HK

June 28, 2004